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ABSTRACT

A primary concern affecting the more than 300 American Indian tribes and their educational institutions is the promotion, maintenance, and preservation of their approximately 200 native languages. The nature of language use must be documented and assessed to ascertain whether tribal members, particularly children, possess native language skills consistent with the body of knowledge that tribal communities wish to pass to future generations. The guide presents factors for American Indian language groups to consider when selecting and/or refining existing instruments and developing new instruments for assessing oral language proficiency including: documenting language usage among community members and the sequence of child language acquisition; identifying phonological, syntactic, and semantic components of a language; defining proficiency; determining dimensions of bilingual measurement; considering cultural, age, linguistic, and technical appropriateness of testing instruments; establishing a language data base; choosing testing approaches (discrete point, integrated, direct rating, self-rating, or observation) and techniques (natural communication or linguistic manipulation); developing instrument administration skills; and pilot testing, field testing, and norming instruments. The report includes: a map locating Arizona Indian reservations and languages, names and addresses of 32 resource linguists for Yuman, Athabascan, and Uto-Aztecan languages; sources for 3 current American Indian Language Assessment Instruments; and a 60-item bibliography. (NEC)

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AMERICAN INDIAN LANGUAGE PROFICIENCY ASSESSMENT:

CONSIDERATIONS AND RESOURCES

Arizona Department of Education

Carolyn Warner, Superintendent
Dr. Jim Hartgraves, Deputy Superintendent

August 1983

HOPI

Hakiy naav lavayi'at öqala' atningwu.

One's own language is one's strength.

PAPAGO

Pi 'att hekid o sa'i hebhu wua g t-ñi'okĭ ñ-ac pi ;i has 'elid c'ep hekaj.

We will never iose our languzge because we respect and use it.

WHITE MOUNTAIN APACHE

Dził Łigai Si'áń biyati'i beyashti'híí bighą beda'oshdlíí. Díí yati' dénzhónéhíí dawa jįį shit'eke' ła'íí shik'íí bił łich'į' yádahiłti'. Dadíí yati'íí zhą' nłt'éégo díí Dził Łigai Si'áńyú nohwini' dénzhónéhíí benagoch'ildi'. Díí yati' dénzhónéhíí ałdo' behach'ido'aał, Na'íí'eesyú ndih. Ła'íí nohwini'híí dagodnłsįhgo yee dado'aał.

I am proud that I can speak the White Mountain Apache language. It is a beautiful language that I use daily to communicate with my friends and relatives. It is the only appropriate language that you can use to describe the beauty of our land here in the White Mountains. This lovely language can also be used in singing, as in the Sunrise Dance. Many songs show respect to our land.

HUALAPAI

Hwalbaych yujim nyi yujik Hwalbay gwe ga nyu wij nyoch Hwalbay nya gwawjim vilwikyu ɖu gud hal yuwk Hwalbay gwawch ba nyi e:jim nyu yum goyuja yivch yu Hwalbay gwe nyi yujiya nya gwawch vach gwe nya yujiva bay gijnajk gana:vki ɖinyud u:k haygu gwawk haygu gwe wijiya spo:j yiɖ gak nya gwawch va wanyaja yivch yuh ɖopkyu.

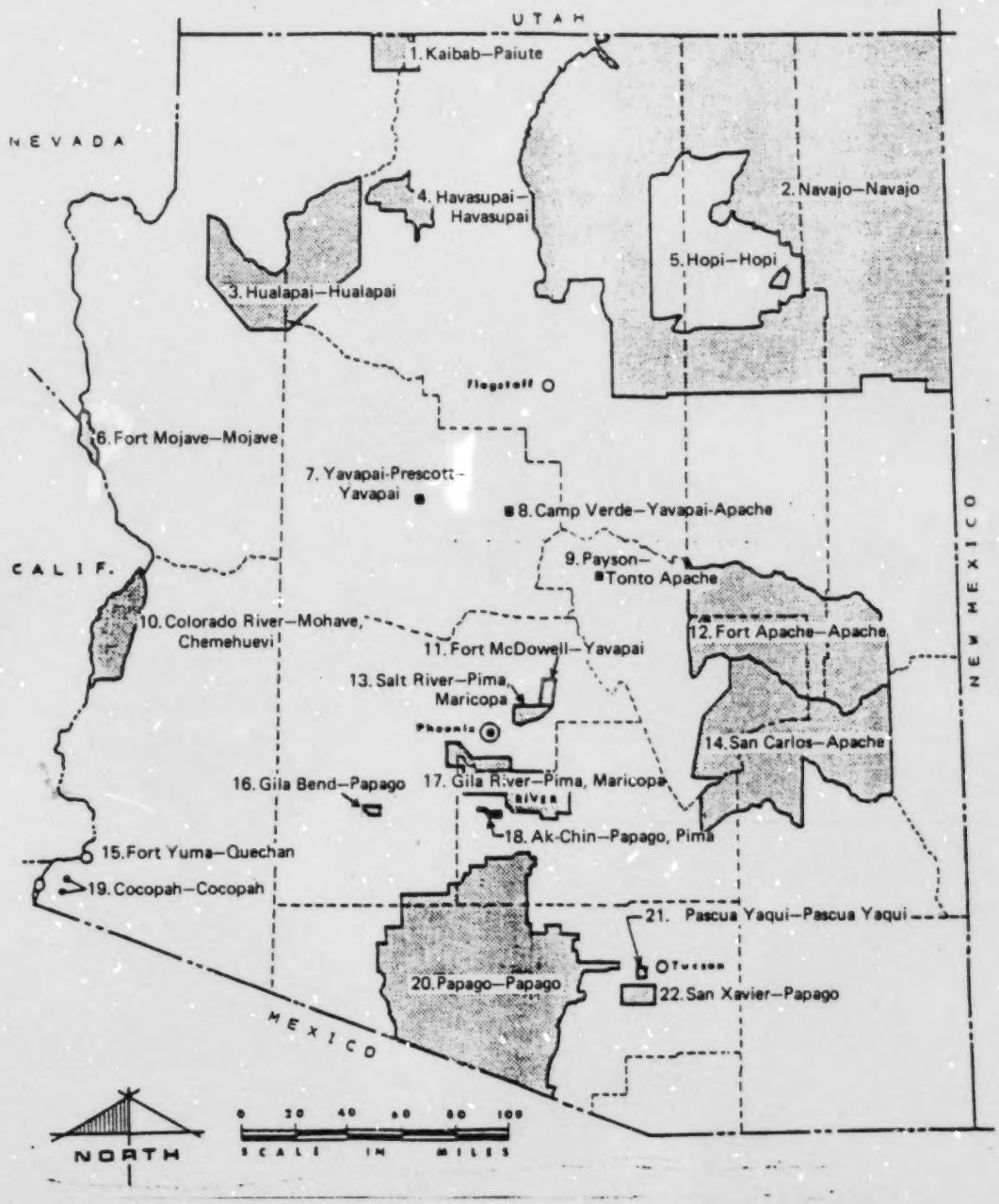
The Hualapai language is a vital part of the people's lives: the language is an inseparable part of our traditional and contemporary life.

NAVAJO

Diné bizaad éí nitsáhákees, nahat'áh, iiná, dóó siihasin óhoo'aah át' éh.

Learning the basic processes of the Navajo language involves thinking, planning, reasoning, and setting goals for the essence of life within the individual.

ARIZONA INDIAN RESERVATIONS AND LANGUAGES



1. Kaibab—Paiute
2. Navajo—Navajo
3. Hualapai—Hualapai
4. Havasupai—Havasupai
5. Hopi—Hopi
6. Fort Mojave—Mojave*
7. Yavapai-Prescott—Yavapai
8. Camp Verde—Yavapai-Apache
9. Payson—Tonto Apache
10. Colorado River—Mohave*, Chemehuevi
11. Fort McDowell—Yavapai
12. Fort Apache—Apache
13. Salt River—Pima, Maricopa
14. San Carlos—Apache
15. Fort Yuma—Quechan
16. Gila Bend—Papago
17. Gila River—Pima, Maricopa
18. Ak-Chin—Papago, Pima
19. Cocopah—Cocopah
20. Papago—Papago
21. Pascua Yaqui—Pascua Yaqui
22. San Xavier—Papago

*Distinct spelling for reservations

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PREFACE

The twentieth century American Indian people, no matter how small or how large the linguistic group, seek to preserve or revive their native languages. With this realization, the Arizona Department of Education, Bilingual Education Unit, and the other participating organizations whose concern and priority lies in the best interest of this effort, is providing the American Indian Language Proficiency Assessment: Considerations and Resources. It is the hope and understanding of the contributors to this document that American Indian people will utilize this material as a means of constructing, modifying and/or implementing an oral language proficiency assessment instrument for their own particular native language.

Appropriate language proficiency assessment instruments should be useful in assessing abilities of speakers of traditional American Indian languages. This would also extend to those language groups who are in the process of developing their writing systems with the goal to increase literacy capabilities in the native language of their respective tribal communities. It is stressed that an oral language assessment instrument should be designed to measure competencies of individuals with first language ability in an American Indian language.

It is imperative that the nature of language use be documented and assessed so that tribal members, especially the youth, can be assessed to ascertain whether they possess the native language skills consistent with the body of knowledge that the tribal communities wish to pass to the future generations of tribal members.

The Arizona Department of Education and the other contributors to this document realize and assure all American Indian people that the information in this document represents a beginning process and that the body of knowledge in this field will continue to increase through additional study and research. With this acknowledgment, comments and suggestions on the contents of this document are most welcome.

INTRODUCTION

American Indian societies reach into antiquity--before the rise of this nation. Throughout the course of history, American Indian tribes faced tremendous obstacles; yet today, in our modern society, the various tribal nations maintain their ancestral languages and traditions. In recognition of their status as sovereign nations, American Indian tribes are developing greater skills and resources to meet their specific needs.

According to the 1980 United States Census Report, the estimated population of American Indians is approximately 1,418,225. There are some 300 tribal groups within this estimated population, each with its own language and heritage. Approximately 200 languages are being used in varying degrees by the tribes throughout the country.

The State of Arizona has the third largest American Indian population, estimated at 152,857. California is ranked first with an estimated population of 201,311 and Oklahoma is second in the nation with an estimated American Indian population of 169,464.

In Arizona there are 17 diverse American Indian languages being spoken by the various tribal groups. The majority of the tribes have retained their language and culture. The 1981-82 Annual Report of the Superintendent of Public Instruction from the Arizona Department of Education indicates that approximately 34,966 Indian students attend public schools. Statistics further show from the Arizona Department of Education's 1981-82 Primary Language Census Report that of the 34,966 Indian students, 21,660 indicate a primary language other than English. This does not include the approximately 13,600 other Indian students who do not attend Arizona public schools. The alternate educational institutions serving these Indian students are the Bureau of Indian Affairs boarding and day schools, church-related mission schools and Indian-controlled schools with support from P.L. 93-638 Indian Self-Determination Act, Johnson O'Malley; P.L. 92-318 Title IV-A, Indian Education Act; P.L. 95-561 Title VII Bilingual Education Act; P.L. 81-874 Impact Aid; and additional federal and private sources.

A primary concern affecting American Indian tribes and their educational institutions is the promotion, maintenance, and preservation of their native languages. Bilingual education programs are expanding in the areas of curriculum development, parental involvement, and language policy development. These programs are also addressing the

need to develop appropriate language proficiency assessment instruments for native speakers.

With tribal interest increasing in language renewal and maintenance, it is imperative that individuals working in the fields of education, linguistics, and psychology be cognizant of the various areas of involvement. One important area is the assessment of proficiency in the tribal language. An American Indian language must have some instrument or procedure to accomplish this.

Many language assessment instruments are currently available and considered reasonably valid. However, there are a minimal number of instruments that are designed to measure languages based on different ways of organizing the world. For example, Indian languages have sound systems and grammatical forms that are distinct from those of the Indo-European language tradition. The cultural and linguistic differences of North American Indian groups are founded in ancient forms of communication unique to this land. The world view of American Indian linguistic families contrasts with that of Indo-European linguistic families. Current efforts in linguistic analysis and language development of American Indian languages by various tribal linguistic groups reveal unique structure and depth in forms of communication. A number of American Indian language institutes and conferences have been helpful in these efforts as Indian people have worked with linguists to expand their understanding of the structure of their ancestral, oral language traditions, as well as to develop their writing systems based on their original tribal languages.

As tribal languages become systematized through a standard or tribally-adopted writing system, then oracy, literacy and first-language proficiency assessment can become a greater possibility; the obtainment and analysis of data to measure student achievement can be realized; and greater gains can occur in educational development.

In developing useful instruments for American Indian language groups, one should consider a number of factors. American Indian languages are in varying levels of use within each linguistic community and in varying stages of development from the spoken ancestral tradition toward a written language. Few American Indian languages have been documented with regard to a developmental sequence of language acquisition among children.

Another consideration is that the wealth of information, which is the richness of oral literature and tradition, is to be found within the elders of the community. This information can provide a body of knowledge on the language itself as well as the revered tribal traditions which are primarily in oral form.

In addition to the above considerations, one must consider the relatively short history of American Indian languages being incorporated into the formal education (schooling) process, and that these languages have not been analyzed according to the developmental stages of language acquisition. Although educators who are themselves native speakers may be able to intuitively recognize what constitutes proficiency in a speaker of a given age, they may be limited in the structural knowledge of their own language.

There is a need for knowledge of a student's actual native language proficiency. This information is important for:

1) Improving program planning, placement and teaching strategies; and

2) Meeting the growing interest among students and parents in maintaining, relearning and developing the native language.

Many American Indian language groups have already begun developing language proficiency instruments. This document is designed to help these groups refine their existing instruments and give direction to those who are beginning the process of developing new and appropriate instruments for assessing oral language proficiency.

LANGUAGE ACQUISITION IN CHILDREN

For centuries parents, scholars, and teachers have been fascinated and amazed by the phenomenon of language acquisition in children. Virtually every child, without special training, builds for himself or herself in a short period of time a deep-level, abstract and highly complex system of linguistic structure. In addition to acquiring the structure of the language of his/her community, the child acquires the complex underlying rule system governing its use: how and when to say what to whom (Lindsfor, 1980).

To learn a language is to discover its system or structure. Precisely how infants discover the structure of their native language is not known. But the structure can be defined, for all languages partake of the same defining characteristics, though a wide variation of the characteristics exists among languages.

The children who are the subject of this document may have acquired the native language of their community as a first language and English as a second language upon entering the school system. They may have been exposed to both the native language and English since infancy, with each language being used for different purposes. They may have been exposed to a linguistic system which draws elements from both English and the native language. The language of the local community may be used in a limitless number of variations.

For these reasons, it is essential, prior to establishing criteria for proficiency in the native language, to carefully document the use of the language among community members. The general sequence of child language acquisition within the particular linguistic community must also be ascertained. Suggestions for these efforts are included on pages 18-19, Establishing a Language Data Base.

COMPONENTS OF LANGUAGE

The essential characteristics of all languages can be listed easily enough. All spoken languages possess a phonemic character, which means simply that in every language a number of sounds (phonemes) are contrasted. Young children discover or sort out the sounds of their native language. Each language has a different set of phonemes or sounds conveying meaning, and each language arranges the phonemes in different units of meaning called morphemes, and children discover these as well. The native English- speaking child, for example, sorts out on some intuitive level, that "walks", while a single word, consists of two units, walk and s. In doing so, the young child discovers the morphological structure of his/her language. The child also learns the phonological rules which apply to modify the basic forms of morphemes in combination. For example, the English-speaking child learns that the plural ending is pronounced (s) following a voiceless consonant and (z) following a voiced phoneme, thus, (s) in cats but (z) in hands.

A third area of language which children discover is the syntactic system, or the grammar features, and the arrangement of morphemes. All languages have a form for indicating the nouns and the verbs, the actor and the acted upon, the attributes of an object, the number of objects, actors, the possessor and the possession, the adjective and the noun. All languages vary in how morphemes are arranged to convey these meanings. Each language has its syntactical rules. Children appear to learn the rules of their language by interaction with other speakers. They attempt to make meaning. Much study has been done on this aspect of language acquisition, and it is recognized that grasping the syntax of one's native language involves generalizing rules. Often the child overgeneralizes, but, before doing this, the child simplifies the rules (Macaulay, 1980). In English, for example, a child says "Mommy working" long before he/she uses the auxiliary verb, "Mommy is working." An example of over-generalization in English often quoted, because often heard is "I goed." The young child using "I goed" has internalized a set of rules which utilize the ed morpheme to indicate the past tense. "I finished the picture. I goed out," the child says with perfect logic.

Another aspect of language structure which all language systems share is often called semantics, the meaning of selected words. It is an aspect that has, for centuries, commanded the attention of philosophers. It appears that meaning is subjective and tied to experience and growth. And in the discipline of child development, it is quite safe to say that words, in any language, often do not mean the same to a child as they do to an adult. This is so because the young child's means of categorization and generalization are limited, developing through experience. Macaulay (1980) speculated that, in English, the reason why children often say finger for thumb at a relatively late age is that thumb is a harder sound to master, and so many children simply will not make the distinctions. That meaning is not always quickly mastered, even on simplest levels, is evidenced by the stages many children go through in confusing "before" and "after" and "ask" and "tell" (Macaulay, 1980).

Even older children who might be expected to come closer to the distinctions in meaning which adults make, reveal semantic differences regarding everyday words. Again, Macaulay (1980) notes some examples:

Adult: What is a brother?

Child: A brother is a boy.

Adult: (seeking to aid) What do you have to have to be a brother?

Child: Pants with pockets.

Meaning is often tied to syntax, and studies have shown that certain grammatical constructions cannot be understood by young children. When a doll was shown with a blindfold over its eyes, the children were asked, "Is the doll easy to see?" The five-and six-year-olds consistently answered "no", and it was further noticed that many seven- and eight-year-olds also answered "no" (Chomsky, 1969). It is evident that children sometimes operate on different syntactic-semantic assumptions than adults.

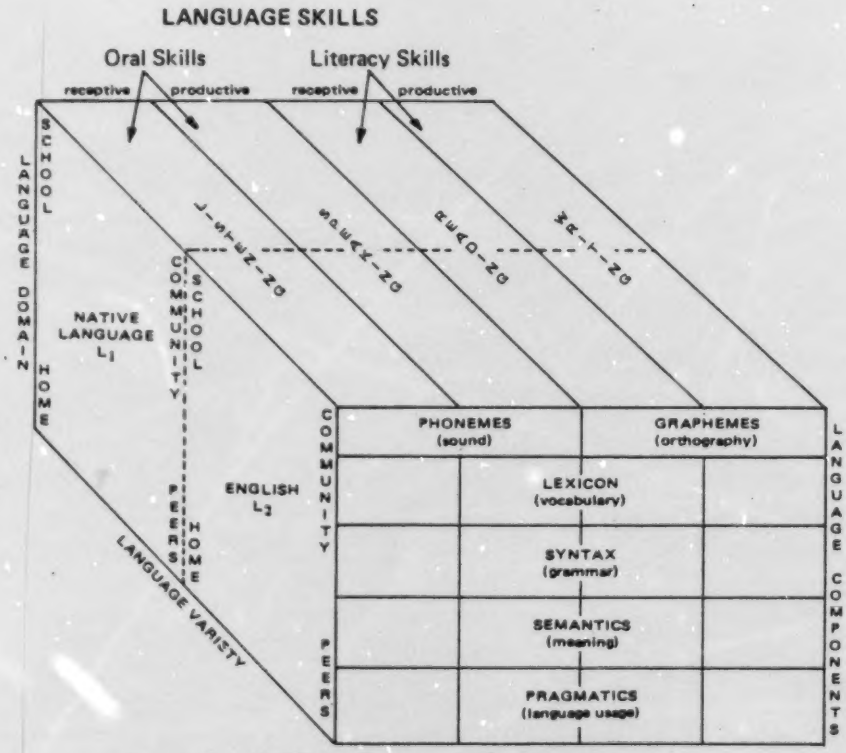
What we do know is that children sort out their native language and grow into all its features - the phonological system, the syntactic system and the semantic system. For most children the phonological system is the earliest mastered. The syntactical, tied as it is to semantics, and both to cognitive development, is second. The semantic is a lifelong process, but, on its simplest levels, may be said to be mastered at the beginning of what Piaget calls formal thought. Language and thought then are

intertwined. Language is related to human growth. The features of a language are inseparable from the human beings who learn and live and grow through that language.

Linguists have developed many models which explain and interrelate various elements of language. While most of these models have some common features, they also vary in one or more key ways. There is no universally accepted model of the elements of language. Models present ways to analyze language in psycholinguistic and sociolinguistic parameters. If you work with linguists or other language experts, they may subscribe to one or more models. The important thing is that models are presented to provide a working familiarity with theories of the elements of language. They should provide background knowledge needed to work with language experts to develop a comprehensive oral language proficiency assessment instrument. An example of such a model is shown below.

FIGURE I

INTERRELATIONSHIP OF THE LANGUAGE AREAS



(Bordie 1970, MacNamara 1967; Cooper 1968; cited in Cohen 1975)

Note. From "Considerations for Developing Language Assessment Procedures", by Charlene Rivera and Maria Lombardo, Bilingual Education Teacher Handbook, 1982, p. 42. Reprinted by permission.

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DEFINITIONS OF PROFICIENCY

Proficiency may be defined in terms of an individual's linguistic and sociolinguistic competence and performance. This includes the degree of acquisition of particular structures and rules within the phonological, morphological, syntactic, lexical, and semantic components, and the demonstration of this competence within particular settings. The speaker's internalized grammar is said to constitute the deep structure of the grammar or the speaker's competence and is distinguished from performance (speech production). Since proficiency can be quantified in terms of rule acquisition, it can be expressed in terms of a linguistic continuum. Thus, the acquisition of only a few rules of the grammar of language X would constitute minimal proficiency. A limited X-language speaker has a minimal proficiency in a language. A fluent speaker has a high proficiency in the language; that is, he or she has acquired all the structures, has a broad range of forms, expressions and lexical items, and can use the language in diverse contexts. A fluent speaker is often described as proficient.

Proficiency can be measured in terms of four modalities: listening comprehension, speaking, reading, and writing. This document focuses on oral proficiency. An illiterate person may be highly proficient in speaking and listening skills but lack literacy. A receptive bilingual, on the other hand, has developed only listening comprehension skills but has no oral or written production in the language. The proficiency of a student must be measured in relation to that of his peers of grade and age level. A student may also demonstrate grammatical competence but be limited in terms of language use, for his or her proficiency may not be that of an adult. Proficiency also encompasses the ability to use the language in a variety of contexts. In the chart below is an example of a proficiency scale. It was adapted from the Foreign Service Institute by the Window Rock Unified District No. 8 in Ft. Defiance, Arizona, and has been used with Navajo students.[1]

Proficiency Scale:

1 - No Proficiency
A rating of 1 indicates that the speaker cannot use the language in any practical way. The child may know a few words or phrases such as polite expressions, but is incapable of conversing meaningfully.

2 - Minimal Proficiency

A rating of 2 is characteristic of speakers who know enough of the language to participate in routine interactions with teachers, relations and peers. "Routine interactions" means expressing basic needs and following simple directions. The child has a very limited vocabulary and makes many mistakes in grammar. Utterances consist of single words, phrases or rudimentary sentences, rarely extended discourse. It may be difficult for others to understand unless they are well acquainted with the child. When conversing with this child it is necessary to use elementary vocabulary and simple sentences; one must speak slowly, repeating or rephrasing often.

3 - Limited Proficiency

A child with a rating of 3 can be expected to converse with limited facility about concrete matters such as family, personal history, travel, recreation, and school experience. There is an elementary grasp of grammar, but frequent errors may interfere with understanding. Utterances typically consist of extended discourse, although detail or elaboration is normally lacking; complicated sentence structures are only rarely employed. Vocabulary is adequate for nonspecialized topics, but the child often hesitates and searches for words. Pronunciation is usually intelligible. It is sometimes necessary to speak to this child slowly and repeat or rephrase difficult points.

4 - Basic Proficiency

Ratings of 4 characterize speakers who can converse in social and classroom contexts with some degree of confidence. Basic grammar is well in hand, but errors occur when complicated structures are employed, and these errors sometimes interfere with comprehension. Utterances consist of extended discourse relating detail or elaboration. The range of vocabulary is wide enough to ensure fair fluency in most instances. Conversing with this child does not require inordinately slow, simplified speech or repetition.

5 - Full Proficiency

As the term "full proficiency" suggests, speakers with a rating of 5 are able to use the language with sufficient fluency and accuracy to meet all social and academic needs appropriate to this age group. Their powers of narration, description and persuasion may even indicate advanced development. Errors in grammar occur only in association with complicated structures and never interfere with comprehension. Such children are likely to have an elementary grasp of idioms and stylistics for that age level. For instance, play on words may be a staple of their humor.

The four linguistic skill modalities can be assessed in terms of this rating scale.

	Listening Comprehension	Speaking	*Reading	*Writing
5				
4				
3				
2				
1				

*Although assessment of reading and writing skills is not addressed in this document, these skills should not be neglected. Instruction and assessment of these skills could be included in each school curriculum where applicable.

EDUCATIONAL APPLICATIONS OF BILINGUAL MEASUREMENT

The identification and diagnosis of bilingual students' linguistic background, performance, and environment are tasks that face countless school personnel. Dimensions of bilingual measurement would include: (1) language-proficiency assessment, (2) language dominance assessment, (3) home language identification, and (4) primary language assessment (Burt and Dulay, 1978). The application of these dimensions of bilingual measurement is shown in Table 1 below.

TABLE 1

Educational Applications of Bilingual Measurement

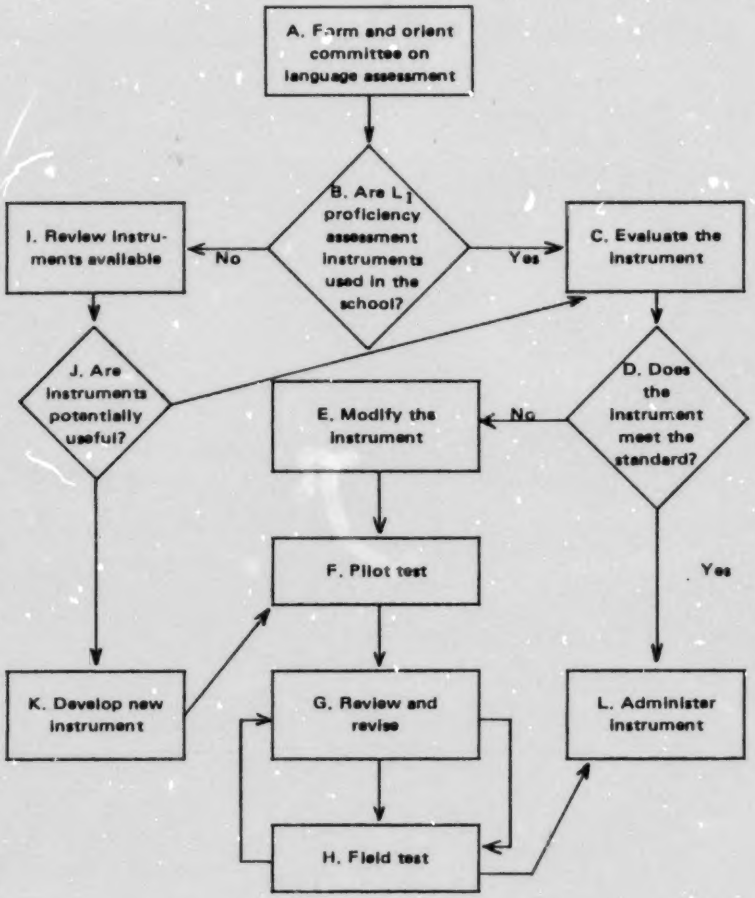
LINGUISTIC DIMENSION MEASURED	APPLICATION
LANGUAGE DOMINANCE	1. Bilingual program planning, including student and faculty assignment. 2. Placement in non-English or English medium reading and subject matter classes. 3. Initial diagnosis to determine language in which further testing is to be conducted. 4. Program evaluation and needs assessment for funding. 5. Census reporting to the Office for Civil Rights, State Departments of Education, and other agencies.
ENGLISH PROFICIENCY	1. Placement in appropriate English instruction group. 2. Determination of readiness to begin English reading instruction. 3. Program evaluation and needs assessment for funding. 4. Census reporting to the Office for Civil Rights and other government agencies.
NATIVE LANGUAGE PROFICIENCY	1. Placement in appropriate native language instructional group. 2. Determination of readiness to begin reading instruction in the native language. 3. Program evaluation and needs assessment.
HOME LANGUAGE USE	1. Educational planning, including choice of bilingual program model and determination of parental participation and assistance. 2. Determination of need to notify parents of school activities in non-English languages. 3. Census reporting to the Office for Civil Rights, State Departments of Education, and other government agencies.
PRIMARY LANGUAGE	1. Census reporting to the Office for Civil Rights, State Departments of Education, and other government agencies.

Note: From "Some Guidelines for the Assessment of Oral Language Proficiency and Dominance" by M. Burt and H. Dulay, TESOL Quarterly 1978, 12, p. 181. Copyright 1978 by TESOL Quarterly. Reprinted by permission.

SELECTING, REVISING OR DEVELOPING ASSESSMENT INSTRUMENTS

The following flow chart outlines the procedure for selecting, revising, or developing a native language proficiency assessment instrument. These tasks should be performed by a committee, whose composition is described in step A. Basically, there are three ways of arriving at a suitable instrument. In the first case, the school is already using an instrument which can be modified or continue to be used as is. A second possibility is the adoption, with or without modification, of an existing instrument from another source, e.g. another school. The final option is to develop a completely new instrument.

In the flow chart, procedures are represented by rectangles and decision points by diamonds; L_1 refers to primary or first language.



DESCRIPTORS

A. *Form and orient committee* to review the status of native language assessment within the school. The committee should include at minimum a linguist, an administrator, a test development expert, a teacher, an aide, and a parent. Insofar as possible, committee members should be proficient in the native language.

B. *Decide*: Are native language (L_1) proficiency assessment instruments being used in the school? If yes, continue with C. If no, proceed to I.

C. *Evaluate* the quality and suitability of the instrument. The information contained on pages 10-15, Testing Considerations, should be helpful.

D. *Decide*: Does the instrument meet the standards outlined in Testing Considerations? If yes, continue administering the instrument as before. If no, continue to step E.

E. *Modify* the instrument to meet the standards outlined in Testing Considerations.

F. *Pilot test* the revised instrument.

G. *Review and revise* using information obtained in F.

H. *Field test* the revised instrument. The information contained on pages 31-35, Pilot Testing, Field Testing and Norming the Instrument, should be helpful. When a satisfactory instrument is completed, administer it within the school.

I. *Review* native language proficiency assessment instruments available elsewhere.

J. *Decide*: Are any of the available instruments potentially useful? If yes, return to step C and review each instrument which seems potentially useful. If no, continue to K.

K. *Develop* new instrument. The information on pages 16-17, Guidelines for Developing New Instruments, should be helpful if you choose to construct a new instrument. After the instrument is developed, proceed to F, G and H.

L. *Administer* the instrument. This means administering the language proficiency assessment instrument with the appropriate American Indian population.

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TESTING CONSIDERATIONS

FACTORS IN DETERMINING THE APPROPRIATENESS OF TESTING INSTRUMENTS

A. CULTURAL APPROPRIATENESS

An understanding of the cultural base of the child and his/her family is important in planning an educational program and in the assessment of students who enter the program. The items should reflect the child's cultural base and represent the major categories of experience children encounter in growing up. Some examples of cultural considerations include child rearing, parental roles, religion, healing, treatment of animals, planting customs, etc. Less obvious are differences between what the school views as appropriate social behavior and what traditional members of the community view as socially appropriate. This may include different approaches to modesty, respect, asking for help, offering help, and what topics are appropriate for conversation. For these reasons, the direct translation of test items is often inappropriate.

Local people can best determine whether test items appropriately reflect the social norms of the traditional culture. Items designed to test linguistic proficiency should represent experiences which are common to most children within the cultural group. Other specific attributes to consider are:

1. Appropriate cultural pictures which include background characteristics;
2. The language terminology and relevance of topics; and
3. Artwork which reflects the local environment as it exists, such as landscape, traditional and contemporary types of housing, dress, etc.

B. AGE APPROPRIATENESS

Linguistic skills occur in the developing process, resulting in differing skill levels at different chronological ages. Assessment of linguistic skills, therefore, requires differentiating among chronological ages. A five-year-old may be judged to be proficient in his/her native language, whereas a seven-year-old with identical skills may be judged to be less proficient.

Assessment instruments must include items which are appropriate to the age levels of the target group. The criterion for various levels of proficiency may differ for different age groups.

C. LINGUISTIC APPROPRIATENESS

To be a valid measure of tribal linguistic skills, a language proficiency assessment instrument must measure language as it is used in the child's linguistic community. Very often this will mean that comparing the child's language use with some presumed "standard" may be inappropriate. Many American Indian languages do not have documented language development sequences. Therefore, intuitive knowledge of local speakers concerning local language usage should be tapped to develop items which represent the way language is used in the local community.

D. TECHNICAL APPROPRIATENESS

There are several criteria which should be considered when judging the technical appropriateness of a native language assessment instrument. While no instrument can reasonably be expected to be perfect in all respects, gross inadequacies should not be ignored or glossed over. Serious problems require modification of the instrument or selection of a different one. The following criteria apply when reviewing an instrument currently in use or when selecting a language assessment instrument for the first time.

CRITERIA FOR DETERMINING TECHNICAL APPROPRIATENESS

Three questions that should be addressed when reviewing an assessment instrument are:

1. Is the purpose clearly identified? Is it appropriate for the way the instrument will be used?

2. Is information provided about the technical characteristics of the instrument? Are the technical characteristics acceptable for the proposed use?

3. Is there adequate information about how the norms were established? Are the norms suitable for use with your students?

These three questions are discussed further.

1. Is the purpose clearly identified? Is it appropriate for the way the instrument will be used?

   Simply being labeled a language proficiency assessment instrument does not make an instrument suitable for all uses. The stated function of the instrument must be compared to the intended use. Some instruments are designed to determine the individual's dominant language. Others attempt to measure proficiency in the native language or English or both. These include instruments which attempt to place the student in one of the five categories of proficiency described on pages 5-6. Finally, others are designed to provide prescriptive data, i.e., information which can be used in designing the instructional program, planning curriculum, making student placements or determining instructional grouping.

   If the stated purpose matches the intended use, then the instrument should be examined to see if it actually measures what it is supposed to measure. Since not all instruments meet the claims made for them in the technical manuals, the actual instruments must be examined to see what aspects of language are assessed, which domains are surveyed and what information is actually provided in the reported results.

2. Is information provided about the technical characteristics of the instrument? Are the technical characteristics acceptable for the proposed use?

   Technical characteristics include the reliability and validity of the instrument, as well as information about how the instrument was developed and field tested and how cut-off points between classifications were derived. The criteria for acceptability in these areas are not clear-cut. Rather, judgments involve carefully reviewing the information available, comparing it to the way the instrument will be used and making global estimates of acceptability. It is important to note that an instrument may be valid for a particular use in one situation or with one group of individuals but may lack validity with other populations. The following will assist in the review of the technical characteristics.

a. What information is provided about the development and field testing of the instrument? Was it developed for use with individuals similar to the students with whom it will be used? Was it field tested on an appropriate group of students?

b. What information is provided about how cut-off points for placing students in different categories or levels were determined? Do they seem reasonable and realistic? Does an incorrect answer on one or two items make a significant difference in an individual's placement?

c. What information is provided about the reliability of the instrument? Is the reliability adequate for the intended use? Reliability describes how consistent the instrument is, i.e., does it provide essentially the same result each time it is used? There are several types of reliability relevant to language assessment instruments:

1) Test-retest - If a student were retested within a brief timeframe using the same instrument, would the result be approximately the same?

2) Alternate form (only applies if there are two forms) - If a student were tested with both forms, would the result be approximately the same?

3) Inter-rater - If a student were rated by two independent judges using the same form or method, would they both provide approximately the same result?

4) Intra-rater - If the same rater made two separate ratings, would the results be approximately the same?

d. What information is provided to assist in assessing the validity of the test? Is the test valid for the intended use? Validity examines whether the instrument actually does what it is intended to do, i.e., does it measure what it is supposed to measure and does it provide accurate, useful information.

The types of validity relevant to language proficiency assessment instruments are:

1) Face validity - Does the instrument appear to measure language ability? This is important because many people may not accept the results if the test appears to be measuring some other trait or ability.

2) Content - Do the items on the test or observation form measure the knowledge or abilities that are truly important for assessing language ability? Does it cover all (or at least most) of the important areas as identified by research and experience? What types of items or questions are used? What domains are covered?

3) Criterion-related - How do the results compare to those obtained from other measures of language ability, e.g., parent or teacher ratings? The instrument should provide results similar to those obtained from different measures of the same ability. Criterion-related validity is often reported as the correlation between the results on two different measures.

4) Construct - What is it that the test actually measures? Does it really measure language ability as we understand it or do scores represent some related but different ability or trait?

3. Is there adequate information about how the norms were established? Are the norms suitable for use with your students?

Norms are statistical information which describe the distribution of scores of a well-defined population of individuals on a particular instrument. They provide information about the level of performance of a particular individual or group of individuals relative to the defined norm group, i.e., by comparing an individual's score to the norms you know how well he or she performed relative to that particular group. With local norms, the norm group could be the students in a particular grade, school or school district. By establishing local norms, one can determine how well the individual performed when compared to the peer group.

Norms can take many forms, e.g., an average score for each grade or school. However, the most frequently used procedure is to convert the raw scores into percentile ranks. A percentile rank tells how well the student performed relative to the other students in the norm group. For example, if a student has a percentile rank of 80 on a test, it means he or she scored as well as or better than 80 percent of the individuals who comprised the norm group.

Norms are important because they allow you to interpret a score and make decisions based on the result. Often cutoff points are established; an individual who scores above that point enters one program while those scoring below it go into a different program. As much as possible, these cutoff points should be tied to the abilities or knowledge needed to perform in the program in question. In addition, it is important to remember that tests and instruments are not infallible. Placement should not be made on the basis of one score. The student's overall school performance and the information provided by parents and teachers should always play an important part in placement decisions.

A detailed description of how to establish local norms is beyond the scope of this document. However, there are three factors to consider when examining a set of established norms or when constructing local norms:

a. Definition and relevance of norm population - Is it clear exactly who is included in the norm group? Is this the group to whom you want to compare your students?

b. Procedures used to construct norms - Is the procedure for deriving the norms from the raw scores clearly outlined? Does the information provided allow you to compare your students' scores to the norms?

c. Usability of norms - Are they easy to read and interpret? Do they provide the information you need to make decisions?

GUIDELINES FOR DEVELOPING NEW INSTRUMENTS

A school may choose to develop a test locally because of various reasons. This task should be undertaken only after considerable discussion has taken place regarding existing tests and the school's resources for test development such as adequate time, commitment of money, support, and technical expertise.

Test construction on a local level should only be undertaken when it is clearly understood that this will be significantly better than existing tests.

A general set of procedures for language test development are given for management purposes only.

Instrument Development Procedures[2]

A. Plan the instrument.

1. Begin tasks on pages 18 and 19 to establish the data base for the native language. The more of this information gathered before the language assessment consultant arrives, the further ahead the process will be.

2. Make arrangements to bring in a test development expert and linguist, both of whom should have a knowledge of the tribal language and construction of language assessment techniques.

3. Select testing approach(es) as listed on pages 20-21 and techniques for assessing language proficiency as listed on pages 22-27.

4. Establish probable length of time for assessing each pupil and determine the number of items in each area.

5. Assign responsibility for writing items.

6. Determine desired test-scoring procedures (hand or machine) and the type of format of information required from the instrument.

B. Write items.

C. Draft overall format including directions, user manual and scoring procedures.

D. Submit items and manual for review to:

1. Persons knowledgeable in the native language and culture.

2. Teachers of the grade level for which instrument was designed to determine appropriateness for that grade level.

E. Pilot test the items in draft form.

1. Select tryout populations.

2. Administer a draft of the test to the tryout population.

F. Analyze the pilot test data.

1. Perform item analysis; delete inappropriate items.

2. Determine how many items should constitute the final test, see pages 31-35.

3. Determine appropriate time frames for test administration.

4. Modify user manual, test directions, directions to student(s) as necessary.

G. Revise and assemble final forms. Determine the final format for test directions, test forms and booklets, user manual, scoring procedures, answer keys, sample items, user training materials. Reproduce tests.

H. Field-test the instrument.

I. Document and analyze field-test data.

1. Determine the reliability of the instrument.

2. Determine the validity of the instrument.

3. Establish local norms.

J. Continue revision and field-test cycle as needed.

ESTABLISHING A LANGUAGE DATA BASE

The following list provides examples of tasks which may be addressed by the committee to prepare for the development of the instrument.[3] It should be stressed that committees may utilize the majority of these procedures prior to working with linguists in the development of language assessment instruments. The tasks lead to the establishment of a general developmental sequence for the native language. The majority of these tasks must be conducted by speakers of the language.

1. Observe and record oral language use within the community.
2. Determine whether the native language has an orthography. If so, what documents and materials can be reviewed?
3. Determine whether the native language is used for official and community purposes. Is it written and/or spoken?
4. Determine who reads and writes the native language.
5. Determine whether an official tribal language policy exists.
6. Gather existing information on grammar and vocabulary of the native language.
7. Gather language samples on all age groups, utilizing video and/or audiotapes. (Be sure to label tapes immediately by age/name/date as this has a bearing on the developmental stages of language. Refer to Language Sampling on page 27.)
8. Survey homes for primary language. The State of Arizona uses the following criteria to categorize a student as having a primary language other than English.
   a. The language most often spoken in the student's home is other than English, regardless of the language spoken by the student.
   b. The language most often spoken by the student is other than English.
   c. The student's first-acquired language is other than English.
9. Develop teacher/teacher aide observation forms.
   a. What language(s) is/are used in the school?
   b. How is the native language used in the school?
   c. How many teachers/teacher aides speak the native language?
   d. How many teachers/teacher aides read and write the language?
   e. How is the second language being taught?
   f. How and when do students use the native language at school?

10. Identify resource people within the community who are fluent speakers of the native language.
11. Conduct discussion groups to determine how language differs throughout the community.
    a. Usage (informal/natural usage as compared with academic or formal usage)
    b. Differing orthographies which may reflect that an official orthography has not been adopted by the tribal council
    c. Variations in language usage across age groups from the younger to the older members of the tribe
    d. Variations in vocabulary or pronunciation within the linguistic group according to geographic area
12. Ask children to think of all the words they know on a topic. This would generate the frequency of vocabulary terms. Record or write this information for possible use as test items which may help determine the developmental stages of language.
13. Show students of various age groups different types of pictures. Ask students to comment on the pictures and record their comments.
    a. Action stimulus pictures - yield verb structure
    b. Position pictures - yield spatial relationships
    c. Description of a person - yield adjectives
    d. Pictures of objects of various sizes and shapes - yield size relationships
    e. Name anything and everything from the picture - yield noun count
14. Show students objects of various shapes and sizes. Ask students questions to determine their knowledge of relationships, (e.g. small, medium, large) and numbers.

LANGUAGE PROFICIENCY ASSESSMENT APPROACHES AND TECHNIQUES

The dilemma facing developers of language proficiency assessment instruments designed for use with children is how to get the child to say what he/she has the ability to say in the assessment situation.

A number of approaches and techniques have been employed which make use of studies that look at various uses of language components.

APPROACHES

Five of the most common testing approaches and their advantages and disadvantages are discussed below. The five are:

Discrete point testing

Discrete point tests select and measure particular items assumed to be representative of a specific area of competence. For example, a student's ability to correctly produce the past tense forms of the verbs walk, play, and want may be assumed to indicate that the student has internalized the rule for regular past tense formation. A multiple-choice test could be constructed to assess the student's ability to select the proper tense at the sentence level, and a longer passage requiring the student to fill in the blanks could be used to assess the student's ability to avoid tense-switching within a paragraph.

Common examples of discrete point testing are multiple-choice and fill in the blank items; the former can be machine scored, but the latter provide more diagnostic information about the kinds of errors likely to be produced by a learner or a group of learners. These formats are more useful for assessing written than oral language. Discrete point tests are widely used in both commercial and teacher-made instruments because they are easy to prepare, administer and score. However, since knowledge of a language is more complex than any sum of discrete items, discrete point tests do not measure overall competence in a language.

Integrated testing

Integrated tests attempt a more global assessment by giving students the opportunity to produce original language samples in response to given stimuli; they are useful for assessing comprehension as well as production of oral language. Examples of integrated tests are answering questions, telling and retelling stories and writing compositions; they are more time-consuming than discrete point tests and more difficult to score and interpret, but furnish a broader base of information.

Direct rating

Direct rating instruments consist of a simulation of a realistic context for language use such as an interview or role playing. They are time-consuming, require specialized training, and are difficult to score. However, they provide information about an individual's command of the language and the general ability to communicate within a given context.

Self-rating

Self-rating questionnaires provide data on the users' perceptions of their ability to function in a given language; they are easy to administer and score. Their usefulness is limited. The value of self-rating is minimal with young children.

Observation

Direct observation of language use in natural contexts such as the playground or the classroom provides important information about the language skills available to a student in a given situation. This approach requires a trained tester and a well-designed coding system, and is time-consuming and difficult to score.

Language assessment planners need to be aware of the value as well as the limitations of each of the approaches. Provisions must be made to supplement the information obtained from the language proficiency assessment administered.

TECHNIQUES

There are many techniques for testing the oral proficiency of young children. Recent studies show that there are a variety of approaches and techniques to determine or measure language performance. Burt and Dulay (1980) affirm that of the four language skills, i.e., comprehension (listening), production (speaking), reading and writing, production is the more commonly used mode for determining the linguistic dominance and proficiency of bilingual students.

Most tasks used to elicit speech samples or verbal responses may be grouped as (1) natural communication tasks or (2) linguistic manipulation tasks according to the presence or absence of a communicative focus (Burt and Dulay, 1980). Tables 2 and 3 explain these tasks on the following page.

TABLE 2

Comparison of Two Major Types of Oral Language Elicitation Tasks: Natural Communication and Linguistic Manipulation

	NATURAL COMMUNICATION	LINGUISTIC MANIPULATION
DEFINITION	1. Taps student's unconscious use of grammatical rules to produce utterances in a conversation. 2. Uses natural speech where student's focus is on communicating something.	1. Taps student's conscious application of linguistic rules to perform a non-communicative task. 2. Uses artificial "speech" where student's focus is on a given rule.
SOME TYPES	Structured communication, Non-structured communication, etc. (See Table 3)	Imitation, Translation, Completion, Transformation, Substitution, etc.
ADVANTAGES	1. The language sample obtained represents natural communication, the skill that is ultimately being assessed. 2. The task is virtually free of confounding task biases.	1. Target structures seem to be readily obtained.
DISADVANTAGES	Certain structures are extremely difficult to elicit naturally, e.g., perfect tenses (had seen).	Confounds conscious knowledge and use of grammar rules with ability to use the language for communication; results in qualitatively different language than communication tasks.

TABLE 3

Comparison of Structured and Non-Structured Natural Communication Tasks

	STRUCTURED COMMUNICATION	NON-STRUCTURED COMMUNICATION
DEFINITION	Natural conversation between student and examiner where examiner asks student specific questions designed to elicit target structures naturally and systematically.	Natural conversation between student and examiner or other person where there is no intent to elicit specific structures.
ADVANTAGES	Target structures may be elicited selectively and quickly; more efficient than non-structured communication.	Structures that are difficult to elicit with specific questions may be offered by subjects spontaneously.
DISADVANTAGES	Not all structures are easily elicited, e.g., yes-no questions.	1. A great deal of speech must usually be collected before a sufficient range of structures is used by the student to permit assessment of linguistic proficiency. 2. One cannot make any statements about the student's control over structures not offered during the collection periods (since one cannot be certain why a structure was not offered, i.e., whether the situation did not require it or whether the child did not know it).

NOTE. From "Some Guidelines for the Assessment of Oral Language Proficiency and Dominance" by M. Burt and H. Dulay, TESOL Quarterly, 1978, 12, pp. 186-187. Copyright 1978 by TESOL Quarterly. Reprinted by permission.

The following are techniques for eliciting language through either natural communication or linguistic manipulation. In assessing young children, care must be taken to select items which assess language ability rather than conceptual development.

Receptive Skills

1. Vocabulary

   The child will be shown a set of four pictures of objects and asked to point to the one named by the tester. The items, including the distractors, should be chosen among those likely to be familiar to the child.

2. Identification of items by attributes

   a. The child will be shown a set of four pictures of familiar objects and asked to identify the one that serves a specific function, e.g., the one you can eat, the one that flies; or has a specific characteristic, e.g., the broken one, the round one, the smallest one.

   b. Identification of items having spatial relation to each other. The child will be shown a set of four pictures and asked to identify the one having a spatial relation to another, e.g., the cup next to the book.

   c. Identification of persons or animals engaged in a particular action. The child will be shown a set of four pictures and asked to identify the one showing someone performing a certain action, e.g., the girl sitting down, while the distractors consist of a girl standing up, a boy sitting down, a dog sitting down.

3. Performing a command or a brief chain of commands

   The child will be asked to touch a part of his/her face, body or clothing, to raise his/her right or left hand or foot, to pick up an item and give it to the tester, or to place an item on top of or next to another item.

Productive Skills

1. Vocabulary fluency

   The child will be asked to name as many items as he/she can think of that belong in a specific domain, e.g., things to wear or things seen in the kitchen. A time limit should be set for each question.

2. Sentence Repetition

   In sentence repetition tasks, the child is instructed to repeat exactly what is stated by the examiner. Once the child understands the nature of the task, he/she repeats a number of sentences, usually varying in length and grammatical complexity.

   The technique of sentence repetition is based on the theory that a child does not merely mimic sentences in whatever form they are modeled, but rather repeats them using his/her own linguistic rules. For example, if the model sentence is "He is going home," a child might say "Him going home" or "Him go home."
   The analysis of sentence repetition tasks usually concerns syntactical development, often as compared to a standard or dialectical variety of a language or as compared to language used by the child's peers. Utterances may also be analyzed at the sentence or semantic level and the content may be developed to include topics from a variety of domains.

   The most accurate scoring of such a test is obtained by taping the responses. The playback will furnish information on phonological, grammatical and vocabulary proficiency. A response in which the child gives the gist of the test item, but makes some acceptable changes, provides evidence of language processing ability and should not be considered wrong. A skilled tester will be able to make useful inferences about the child's stage of linguistic development on the basis of the kinds of coping strategies used.

   Although a somewhat artificial use of language, this technique can provide information concerning a child's use of particular structures which may not be observed otherwise.

3. Answering Questions

The child will be asked appropriate questions about himself or herself and his/her experiences. The answers should be evaluated not only in terms of grammatical correctness but in terms of fluency and appropriateness. Another possibility consists of using pictures or objects and asking questions about them.

4. Closure

The child will be asked to finish an incomplete sentence such as "It was cold and the boy put on his . . ."

5. Completing an unfinished story

The child will be shown a series of three sequenced pictures representing an unfinished event, and asked to tell what happened next.

6. Retelling a story

The child will be told a story and asked to retell it to the tester, or, preferably, to another person who was not there during the telling by the tester.

7. Telling a story

The child will be shown a series of pictures representing a succession of events and asked to tell what happened.

Language Sampling

Language sampling is the collection of a variety of utterances from a child, which may be obtained in a more or less structured manner. The child's utterances are often tape recorded for later analysis. A basic assumption of this technique is that a representative sample of the child's language skills is observed. Different settings have an effect on children's linguistic behaviors. A representative sample of a child's total communication abilities may require a sampling from more than one setting. If a variety of settings can be sampled, the child is permitted to produce and respond to language in different domains. Obtaining a sample from a large number of children in a specified manner would allow comparisons of language used in that particular setting. It would not necessarily provide information on language usage in other settings.

The methods of collecting samples are varied and may include one or more of the following:

1. Observation of the child in one or more domains, e.g., classroom, playground, home
2. Peer interaction which may be spontaneous or organized by the observer in some way
3. Teacher-child interaction occurring in a play situation
4. Teacher-child interaction using stimuli such as books or pictures
5. Story telling using wordless books
6. Story retelling where the child listens to a story and retells it

Once a language sample has been collected it is possible to analyze it in a variety of ways. Often the language samples are compared to a predetermined standard. The standard may be adult speech forms of the "standard" language or adult speech forms of a particular dialect. It may also include speech forms typically used by peers of the same chronological age.

ADMINISTRATION OF INSTRUMENTS

Administration procedures are dependent on the type of instrument used and should be determined as part of instrument development. To make valid assumptions concerning an individual's language usage and to make comparisons between children, standardization must be maintained in test administration and in scoring. Therefore, those involved in the administration, scoring, and interpretation of language proficiency assessment instruments should receive thorough training in these areas. The examiner should be a native speaker of the language and, if possible, a member of the child's community with whom good rapport can be established.

Above all, neither the teacher nor the student should consider the language proficiency assessment as a test, but rather as a vehicle for obtaining important information about the student and his or her language needs.

For instruments testing receptive language skills the following considerations are necessary:

1. In what language will the directions be given?
2. How will practice items be used? Can they be explained and repeated if the child answers incorrectly or does not answer at all?
3. How will the examiner respond to or score responses from the child?
4. How will questions from the child, including requesting repetition, be handled?
5. How will responses be scored so that the child will be unaware of incorrect responses?
6. Under what physical conditions will the testing occur?

For instruments including a child's ability to follow a series of commands the following considerations are necessary:

1. Will practice items be provided and if so can they be repeated or explained?
2. Does the order in which the command is performed matter in scoring?
3. May the examiner repeat the command?

For instruments testing productive language skills the following considerations are necessary:

1. What techniques will be used?
2. How will the stimuli be presented?
3. How will the child's responses be documented? Will a tape recording be necessary?
4. How will the examiner respond to the child's questions?
5. May the examiner repeat any part of the procedures?
6. What aspects of the test responses will be scored?
7. What dialect will be acceptable?
8. What should the examiner do if the child responds in English rather than in the American Indian language?

For observation techniques the following considerations are necessary:

1. In what environmental setting are the children to be observed?
2. Which linguistic skills are important for scoring purposes?
3. Which scoring techniques will be used?
4. What considerations will be given to children who exhibit limited verbalization?

Many decisions about assessment instruments are probably made on the basis of their feasibility, e.g., cost, ease of scoring or time required for administration. While these factors are certainly important, the suitability of the instrument for the particular purpose, the reliability and validity and the availability of appropriate norms should be considered first and foremost. A bad or irrelevant instrument that is easy to administer, score and interpret may do more harm than good. On the other hand, the best instrument is of little value if it can't be used or used properly due to logistical problems.

Some of these potential factors to be considered are:

1. Cost - How much will it cost to develop the instrument and user's manual, and to administer and score the instrument? What would it cost to develop and norm an instrument specifically for your students? Remember to include the cost of any trained personnel needed to administer, score and interpret the instrument.

2. Time - How much time is needed to complete a valid administration? The value of the information obtained must be weighed against the time required to obtain it, for both the student and the school staff.

3. Ease of scoring and interpretation - Can individuals who speak and understand the native language be trained to administer, score and interpret the instrument or will it require specially trained individuals? Will teachers be able to understand and use the information provided by the instrument? Can it be machine scored or does it have to be done by hand?

PILOT TESTING, FIELD-TESTING AND NORMING THE INSTRUMENT

Although constructing a language proficiency assessment instrument is certainly a most important and difficult task, it is only the first step in developing a validated instrument that is ready for use. Test validation is the process of examining the whole test, as well as each individual item, to see how well the items assess what they are intended to assess. Test validation can be divided into two parts, item analysis (pilot testing) which examines individual items, and field-testing, which examines the reliability and validity of the test as a whole.

One relatively simple way of judging the items on a test is to examine how students with varying levels of ability respond to each of the items. If the students can be listed in order, from those with the highest level of language proficiency to those with the lowest, this can provide quite a lot of information about individual items. After the students have been rank ordered in terms of ability, and which students made correct or incorrect responses to each item recorded, the pattern of responses can be examined. On good items, the students with higher ability should do as well as or better than the students with less ability. Any questions where ability does not seem to be related to making the correct response should not be included on the test. Of course, the results are rarely clear-cut; generally the patterns of responses will be difficult to interpret. There are always some students who respond correctly when they would not be expected to know the answer and others who miss questions when they would be expected to know the correct response. This may be due to guessing, temporary lack of attention, carelessness or any of several other reasons. Whatever the cause, it increases the difficulty of identifying good and bad items.

The other and perhaps most difficult problem is listing the students in order of ability. Sometimes this can be done by having someone fluent in the native language interview some of the students who took the test and rank them in order of ability in the native language.

Several fairly complex statistical procedures have been developed in response to these difficulties. Discriminating power, described in more detail below, is a statistical procedure which uses the overall score on the test as the measure of the students' native language ability. Each individual item is compared to the test as a whole, instead of ranking the students through some outside means. It is assumed that students with the best overall rating on the language proficiency instrument have the

highest ability and should do better on any given question than students with lower ratings on the instrument. All of the statistical procedures for test validation require fairly complex numerical analysis and interpretation, thus they will usually require the assistance of an individual with a background in measurement and testing. Also, since most statistical analyses are done with computers, it may be necessary to have skills and access to a computer.

The information for the item analysis is obtained by pilot testing, i.e. administering the instrument to a sample of the students with whom it will actually be used. The number of students included in the sample will depend upon the size of the target population and type of instrument.

In any case, it is important for the sample to include students with wide ranges of ability as well as representatives of the grades for which it will ultimately be used. Item analysis examines two characteristics, item difficulty and discriminating power. With multiple choice items, the effectiveness of the incorrect responses, called distractors, is also examined.

Item difficulty - The aim of any instrument is to differentiate among people according to how much they know or can do. Items which everyone gets right or anyone gets wrong do not provide any information about the differences in ability among those taking the test. Therefore, items should be selected which some individuals get right and others get wrong. A good test item is one where students who have reached certain levels of skill or knowledge will respond correctly, while those who lack that knowledge or skill will not. Statistical item difficulty is actually the percentage of students who make the correct responses to an item. For norm-referenced tests, item difficulties of 30% - 70% are generally considered satisfactory.* Usually items which nearly everyone gets right or everyone gets wrong are eliminated from the test since they contribute little to its ultimate purpose. However, on instruments where you need to measure students with wide ranges of ability, such as language proficiency instruments, it is necessary to include some items which are very easy and also some which are difficult for most of those who will be tested.

*The formula for calculating item difficulty (I.D.) is:

$$\text{I.D.} = \frac{\text{number of individuals making correct response}}{\text{total number of individuals who took the test}}$$

Often this number is multiplied by 100 and reported as a number between 0 and 100.

In some cases, it may be desirable to include several easy items (i.e., those which nearly everyone gets correct) at the beginning of the test to help students relax and build their confidence.

Discriminating Power - Discriminating power looks at who responds correctly to each item. A good item will discriminate between those who have reached a given level in the developmental sequence of language acquisition and those who have not. Students who have mastered the particular aspect of language being assessed should respond correctly. However, we do not know which students have mastered each aspect of language (which is why we are assessing them). Thus, performance on each individual item is compared to overall performance on the complete instrument. Students who demonstrate a high degree of proficiency on the instrument as a whole should be more likely to respond correctly to any individual item. Only items where students with higher overall performance do better than students with lower overall performance should be included in the instrument.

Distractability - When multiple choice items have a low difficulty or discriminating power, it may be helpful to examine the pattern of responses to determine possible causes of the problem. There are often readily identifiable reasons for students' picking a certain incorrect response (distractor). Also, if no one selects a given distractor, it should be replaced with a more plausible choice. If students who are known to be proficient speakers of the native language frequently select a certain incorrect response, it often means the question is misleading or ambiguous or something about the particular distractor is causing the problem. In any case, the item should be improved or discarded. This is also true for any item with unsatisfactory item difficulty or discriminating power. Naturally, if items are going to be discarded due to unsuitability, it is necessary to include more items in the pilot test than are needed for the final version of the test.

After the unsatisfactory items have been discarded and the instrument arranged in its final form, it must be field-tested to estimate the reliability and validity of the test for its intended purpose. Reliability measures how consistent the instrument is, i.e., would students be judged approximately the same if they were administered the instrument two or more times. Validity examines how well the instrument does what it is supposed to do, i.e., does it really measure native language proficiency.

Reliability - Data from one or more field-test administrations of the instrument are used to calculate estimates of reliability. Reliability is usually reported as a correlation coefficient, which has a range of 0 to 1. For estimates of reliability, coefficients of .85 or better are considered to be very good and around .70 generally considered to be satisfactory. Correlation coefficients are estimates of the degree of the relationship or how things "go together". The larger the coefficient, the greater the relationship between two sets of data.

For example, with test-retest reliability (see page 13 for a definition), a group of students is given the same instrument twice within a relatively short period of time, usually less than two weeks. Since it is assumed that the students' knowledge has not changed too much between the first and second testing, they should get about the same score both times if the test is reliable. The more reliable the test, the more similar the student scores will be on the two administrations.

It is important to decide which type of reliability is most appropriate and feasible before conducting the field-testing so that necessary data can be collected. A more detailed description and definition of different types of reliability are given on pages 12-13.

Validity - Validity, which examines whether or not the instrument actually measures what it is supposed to measure, is harder to estimate statistically and, therefore, is calculated less frequently. However, one method which provides useful information is to compare the results of the field-test with estimates of the native language ability provided by the student's teacher, parents, or someone else who is fluent in the native language. Hopefully, the test and this individual judgment will provide similar estimates of the student's native ability. A more detailed description and definition of validity are given on pages 13-14.

NORMING

Norms provide the information needed to interpret or give meaning to an individual's score. The process of constructing norms involves two steps:

1) Administering the final form of the instrument to a representative sample of students which includes all ages and ability levels for whom it will be used.

2) Converting the resulting raw scores to standardized scores (e.g., percentile ranks), using a transformation based on the theory of the normal curve and the distribution of traits within a population.

An individual's score can be compared to the scores from this norm group to establish his or her native language ability relative to other students of the same age or grade. In addition, Technical Paper No. 7 by Wood and Tallmadge in the ESEA Title I Evaluation and Reporting System, "Local Norms", provides a more in-depth but simple presentation on the topic.

Distinguishing features of American Indian languages have been emphasized related to the difficulty of designing tribal language proficiency instruments. The development of norms for American Indian language proficiency assessment instruments is a task which has been undertaken by few tribal language groups. In Peach Springs, Arizona, the Hualapai Oral Language Test is currently undergoing standardization of data to establish their local norms. The reader is referred to Appendix C for further information on this instrument.

CONCLUDING REMARKS

In conclusion, American Indian Language Proficiency Assessment: Considerations and Resources has presented insights and guidelines for establishing viable instrumentation for assessing the oral language proficiencies of a unique population--American Indian children.

Many considerations have been analyzed in examining what is involved in assessing oral native language proficiency applicable to tribal groups. It is hoped that school personnel, parents, and resource people involved will take care in examining the major aspects outlined in this guide in designing appropriate instruments for their students.

Schools serving Indian students should be cognizant of the following considerations:

> Native language proficiency assessment is necessary in determining accurate placement and in designing appropriate curricula for Indian bilingual children. Such a process will enable schools to focus more effectively on the unique needs of Indian students.
>
> In concert with the Indian community, schools should develop a philosophy and policy statements which promote the improvement of educational programs and opportunities for Indian children with unique language and cultural backgrounds. A school committee will help this process.
>
> The school committee should decide and select approaches which would best assess native oral language proficiency of Indian students. This committee must consider the numerous areas discussed in this document, including: 1) linguistic elements of the particular language group, 2) appropriate testing standards and procedures, and 3) educational applications which would best serve the needs and backgrounds of Indian students.

Native oral language proficiency assessment is a tremendous challenge. The intent is that strategies to meet this challenge will result in improved education for children who deserve a chance to benefit from relevant curricula with the assistance of appropriate language proficiency assessment.

It is the hope of the contributors to this document that American Indian groups will utilize the American Indian Language Proficiency Assessment: Considerations and Resources to work in coordination with schools to improve Indian education and to preserve what is inherently traditional.

APPENDIX A

ACKNOWLEDGMENTS

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APPENDIX B

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The following individuals have agreed to be considered as resource linguists within their own respective language family groups.

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The Arizona Department of Education, Bilingual Education Unit maintains a resource list of additional people knowledgeable in the various language family groups. These people may be able to provide some invaluable service to American Indian communities in areas such as exploring the language in depth with a native community linguist who is well-versed in the language and/or exploring the language in an academic manner.

APPENDIX C

AMERICAN INDIAN LANGUAGE ASSESSMENT INSTRUMENTS

The following American Indian Language Proficiency Assessment Instruments have been developed and are currently in use. They may be utilized as samples for the local development of language proficiency assessment instruments.

1. Hualapai Oral Language Test

   Contact person: Lucille Watahomigie
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2. Borrego Pass School Navajo Proficiency Assessment

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REFERENCE NOTES

1. The Proficiency Scale was taken from the Window Rock Oral Language Test which was also adapted from the Foreign Service Institute (FSI).

2. The Guidelines for Developing New Instruments were adapted from the Language Assessment Manual, Resources for Developing a Student Placement System for Bilingual Programs, Southwest Regional Laboratory for Educational Research and Development in Los Alamitos, CA 90720.

3. Some information included in Establishing a Language Data Base was excerpted and adapted from an unpublished manuscript of the Native American Materials Development Center in Albuquerque, New Mexico.

REFERENCES

BOOKS

Chomsky, Carol. The Acquisition of Syntax in Children from Five to Ten. Cambridge: the M.I.T. Press, 1969.

Cohen, Andrew D. A Sociolinguistic Approach to Bilingual Education. Rowley, Massachusetts: Newbury House Publishers, Inc., 1975.

Gay, L. R. Educational Evaluation and Measurement. Columbus, Ohio: Charles E. Merrill Publishing Company, 1980.

Kerlinger, F. N. Foundations of Behavioral Research. New York: Holt, 1973.

Lindsfor, Judith Wells. Children's Language and Learning. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1980.

Martuza, Victor R. Applying Norm-Referenced and Criterion-Referenced Measurement in Education. Boston: Allyn and Bacon, Inc., 1977.

McCaulay, Ronald. Generally Speaking: How Children Learn. Massachusetts: Newbury House Publishers, Inc., 1980.

Spolsky, Bernard. What Does It Mean to Know a Language: Readings on English as a Second Language for Teachers and Teacher Trainers, 2nd Edition. Edited by Kenneth Croft. Cambridge: Winthrope Publishers, 1980.

PERIODICALS

Burt, Marina and Dulay, Heidi. "Some Guidelines for the Assessment of Oral Language Proficiency and Dominance," TESOL Quarterly, Vol. 12, No. 2, 1978.

Hernandez-Chavez, Eduardo; Burt, Marina; and Dulay, Heidi. "Language Dominance and Proficiency Testing: Some General Considerations," NABE Journal, Vol. III, No. 1, 1978.

Rivera, Charlene and Lombardo, Maria. "Considerations for Developing Language Assessment Procedures," Bilingual Education Teacher Handbook: Language Issues in Multicultural Settings. Edited by Martha Montero. Cambridge: Evaluation, Dissemination and Assessment Center, 1982.

RESEARCH DOCUMENTS

Oller, John W., Jr. Linguistics and the Pragmatics of Communication. 1970 (ERIC Document Reproduction Service No. ED 041292)

GOVERNMENT DOCUMENTS

Arizona Department of Education, ESEA Title VII Bilingual Education Primary Language Census Report. Phoenix, Arizona: Arizona Department of Education, April 1983.

Arizona Department of Education, 1981-82 Annual Report of the Superintendent of Public Instruction, Phoenix, Arizona: Arizona Department of Education, November 1982.

Frazen, Barbara M. and Hearst, David P. "Types of Test Scores," ESEA Title I Evaluating and Reporting System. Washington, D.C.: U.S. Government Printing Office, 1976.

United States Census Report. Washington, D.C.: U. S. Government Printing Office, 1980.

Wood, Christine and Tallmadge, G. Kasten. "Local Norms," ESEA Title I Evaluation and Reporting System. Washington, D.C.: U.S. Government Printing Office, 1976.

RECOMMENDED READING RESOURCES

Bachman, L. F. and Palmer, A. S. "Convergent and Discriminant Validation of Oral Language Proficiency Tests." Edited by R. Silverstein. Occasional Papers on Linguistics Number 6, Proceedings of the Third International Conference on Frontiers in Language Proficiency and Dominance Testing. Carbondale, Illinois: Southern Illinois University, 1979.

Bachman, L. F. and Palmer, A. S. "Some Comments on the Terminology of Language Testing." Paper presented at the Language Proficiency Assessment Symposium. Rosslyn, Virginia: InterAmerica Research Associates, 1981.

Bennett, A. "Reaction to M. Canale, A Communicative Approach to Language Proficiency Assessment in a Minority Setting." Paper presented at the Language Proficiency Assessment Symposium. Rosslyn, Virginia: InterAmerica Research Associates, 1981.

Bloom, L and Lahey, M. Language Development and Language Disorders. Santa Barbara: John Wiley and Sons, 1978.

Briere, Eugene J. "Current Trends in Language Testing," TESOL Quarterly, Vol. 3, No. 4, 1968.

Briere, Eugene J. "Some Psycholinguistic Considerations Involved in a Language Testing Project." Edited by G. E. Perren and J. L. M. Trim. Application of Linguistics: Selected Papers of the Second International Conference of Applied Linguistics. Cambridge: Cambridge University Press, 1972.

Briere, Eugene J. "Testing Communicative Language Proficiency." Edited by R. Silverstein. Occasional Papers on Linguistics Number 6: Proceedings of the Third International Conference on Frontiers in Language Proficiency Testing. Carbondale, Illinois: Southern Illinois University, 1979.

Burt, Marina; Dulay, Heidi; and Hernandez-Chavez, Eduardo. Bilingual Syntax Measure: Technical Handbook. New York: Harcourt Brace Jovanovich, 1976.

Bye, Thomas. Tests That Measure Language Ability. Berkeley: Bay Area Bilingual Education League, 1978.

California State Department of Education, Schooling and Language Minority Students: A Theoretical Framework. Sacramento, California, Los Angeles: Evaluation, Dissemination and Assessment Center at California State University, 1981.

Cazden, C.; Bond, J. T.; Epstein, A. S.; Matz, R.D.; and Savignon, J. "Language Assessment: Where, What and How." Edited by W. J. Tikunoff and B. A. Ward. Anthropology in Education Quarterly, Vol. 8, No. 2, 1977.

Chomsky, Noam. Aspects of the Theory of Syntax. Cambridge: M.I.T. Press, 1965.

Clark, J. "Toward A Common Measure of Speaking Proficiency." Edited by J. R. Frith. Measuring Spoken Language Proficiency. Washington, D. C.: Georgetown University Press, 1980.

Clark, J. "Toward a Common Measure: Status Report on the Common Yardstick Project." Paper presented at the Pre-conference on Oral Proficiency Assessment. Georgetown University Round Table on Languages and Linguistics, 1981.

DeAvila, Edward A. and Duncan, Sharon E. Language Assessment Scales: LAS I and II. California: Linguametrics Group, 1977.

DeAvila, Edward A. and Duncan, Sharon E. Language Minority Child: A Psychological, Linguistic and Educational Analysis. Washington, D. C.: National Institute of Education, 1980.

Epstein, Noel. Language, Ethnicity, and the Schools: Policy Alternatives for Bilingual Bicultural Education. Washington, D. C.: Institute for Educational Leadership, 1977.

Ervin-Tripp, S.M. "Imitation and Structural Change in Children's Language." Edited by E. H. Lenneburg. New Directions in the Study of Language. Cambridge: M.I.T. Press, 1964.

Fishman, J. A. "The Sociolinguistic Foundation of Language Testing." Edited by Bernard Spolsky. Papers in Applied Linguistics. Arlington, Virginia: Center for Applied Linguistics, 1978.

Freytes, C. and Rivera, C. In-Service Educational Models for Classroom Educators to Assess Language Proficiency in Bilingual Students. Los Angeles: National Dissemination and Assessment Center, 1979.

Gray, Tracy and Potter, Lance. "Student Placement System," NABE Journal, Vol. 3, 1981.

Herbert, C. Basic Inventory of Natural Language (BINL). San Bernardino, California: Checpoint Systems, 1977.

Hunt, K. W. "Syntactic Maturity in School Children and Adults," Monographs of the Society for Research in Child Development, Vol. 35, No. 1. Chicago: University of Chicago Press, 1970.

Ingram, E. "The Psycholinguistic Basis." Edited by Bernard Spolsky. Advances in Language Testing Series: 2. Arlington, Virginia: Center for Applied Linguistics, 1978.

John-Steiner, Vera; Ostereich, Helgi; and Nihlen, Ann S. "Evaluation of Communicative Competence in Bilingual Children," Bilingual Resources, Vol. 2, No. 2, 1979.

Lourie, Margaret A. and Conklin, Nancy F., Editors. Pluralistic Nation: The Language Issue in the United States. Rowley, Massachusetts: Newbury House Publishers, Inc., 1978.

Locks, N., Pletcher B.; Reynolds, D. Language Assessment Instruments for Limited-English-Speaking Students. Washington, D.C.: The National Institute of Education and U. S. Department of Health, Education, and Welfare, 1978.

McCarty, Teresa L. "Language Use by Yavapai - Apache Students," Journal of American Indian Education, Vol. 20, No. 1, 1980.

Rivera, Charlene and Lombardo, Maria. English as a Second Language Assessment Battery (ESLAB). Boston, Massachusetts: Boston University, 1979.

Rosenbluth, Annabelle R. "The Feasibility of Test Translation Between Unrelated Languages: English to Navajo," TESOL Quarterly, Vol. 10, No. 1, 1976.

Sanchez, Rosaura; Romo, Harriet; Santos-Rivera, Iris; and Williams, Byron. "Issues in Language Proficiency Assessment." San Diego: Institute of Cultural Pluralism, San Diego State University, 1978.

Saville-Troike, Muriel. "Bilingual Children: A Resource Document." Papers in Applied Linguistics. Arlington, Virginia: Center for Applied Linguistics, 1973.

Shuy, R. W.; McGreedy; and Adger. Oral Language Assessment Instrument. Washington, D.C.: Center for Applied Linguistics (Unpublished Manuscript), 1979.

Silverman, R.; Noa, J.; and Russell, L. Oral Language Tests for Bilingual Students: An Evaluation of Language Dominace and Proficiency Instruments. Portland, Oregon: Center for Bilingual Education, Northwest Regional Laboratory, 1977.

Simich, C. and Rivera, C. "The Development of a Teacher Observation Instrument: An Ethnographic/Sociolinguistic Approach." Paper presented at the Language Assessment Symposium. Rosslyn, Virginia: InterAmerica Research Associates, 1981.

Slobin, D. I. and Welsh, C. "Elicited Imitations as a Research Tool in Developmental Psycholinguistics." Edited by C. S. Lavatelli. Language Training in Early Childhood Education. Urbana, Illinois: University of Illinois Press, 1971.

Spolsky, Bernard. "Introduction: Linguists and Language Testers." Edited by Bernard Spolsky. Advances in Language Testing Series: 2. Arlington, Virginia: Center for Applied Linguistics, 1978.

Spolsky, Bernard and Kari, James. "Apachean Language Maintenance," International Journal of the Sociology of Languages, Vol. 2, 1974.

St. Clair, Robert N. and William Leap, Editors. Language Renewal Among American Indian Tribes. Rosslyn, Virginia: National Clearinghouse for Bilingual Education, 1982.

Teller, Virginia and White, Sheila J., Editors. Studies in Child Language and Multilingualism. New York: New York Academy of Sciences, 1980.

Tests Appropriate for Use with American Indians. Princeton, New Jersey: Educational Testing Service.

Widdowson, H.G. Explorations in Applied Linguistics. England: Oxford University Press, 1979.

Wilkinson, Andrew. The Foundations of Language. England: Oxford University Press, 1971.